

AD-A263 838



2



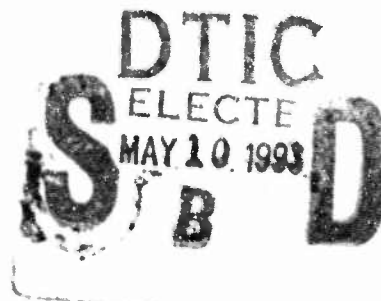
The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

**IRAN'S GROWING NUCLEAR WEAPONS
PROGRAM: A CATALYST FOR
REGIONAL INSTABILITY IN THE MIDDLE EAST**

BY

LIEUTENANT COLONEL JOHN J. DEYERMOND
United States Army

DISTRIBUTION STATEMENT A:
Approved for public release.
Distribution is unlimited.



USAWC CLASS OF 1993



U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

93 5 06 12 7

93-10041
|||||

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE			Approved for public release. Distribution is unlimited.		
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION U.S. Army War College		6b. OFFICE SYMBOL (if applicable)	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) Root Hall, Building 122 Carlisle, PA 17013-5050			7b. ADDRESS (City, State, and ZIP Code)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
PROGRAM ELEMENT NO.		PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.	
11. TITLE (Include Security Classification) Iraq's Growing Nuclear Weapons Program: A Catalyst for Regional Instability in the Middle East					
12. PERSONAL AUTHOR(S) John J. Deyermond, LTC, USA					
13a. TYPE OF REPORT Study Project		13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) 93 Mar 10		15. PAGE COUNT 32
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>Following the end of the Cold War, the United States as well as other nations around the world now find themselves in a state of political, economic, and military transition. While the U.S. and other nations such as the Islamic Republic of Iran are undergoing significant increases in military spending. This increase has been primarily in the area of conventional forces, however there is growing evidence that Iran is also attempting to develop a nuclear weapons capability as well. This study examines Iran's nuclear weapons program in detail, and Tehran's increasing ability to emerge as a regional power in the Middle East.</p>					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL COL MARK R. WALSH			22b. TELEPHONE (Include Area Code) 717/245-3022		22c. OFFICE SYMBOL DNSS

USAWC MILITARY STUDIES PROGRAM PAPER

**IRAN'S GROWING NUCLEAR WEAPONS PROGRAM: A CATALYST FOR
REGIONAL INSTABILITY IN THE MIDDLE EAST**

AN INDIVIDUAL STUDY PROJECT

by

**Lieutenant Colonel John J Deyermond
United States Army**

**Colonel Mark R. Walsh
Project Advisor**

**DISTRIBUTION STATEMENT A: Approved for public
release; distribution is unlimited.**

**U.S. Army War College
Carlisle Barracks, Pennsylvania 17013**

**The views expressed in this paper are those of the
author and do not necessarily reflect the views of
the Department of Defense or any of its agencies.
This document may not be released for open publication
until it has been cleared by the appropriate military
service or government agency.**

INTRODUCTION

Since the end of World War II, United States national security strategy has been centered around the Cold War struggle with the Soviet Union. The United States policy objective has had at its core, the containment of communism and prevention of its spread throughout the world. In addition, national security interests also focused on the prevention of nuclear war between the superpowers, and simultaneously controlling the spread of nuclear weapons proliferation. Arms control agreements between the former Soviet Union and the United States were the centerpieces of foreign policy initiatives during this period. Regional policy concerns played a supporting role.

During the past several years, the world has witnessed a series of changes unparalleled in recent history. These changes have had a profound impact on world events and America's foreign policy goals and objectives. For example, the world has witnessed the destruction of the Berlin Wall, the breakup of Eastern Block countries, and the dissolution of the former Soviet Union. In addition, the United States as part of a revitalized United Nations, successfully fought a major war in the Middle East with Iraq over the latter's annexation of Kuwait.

These events have signaled a sea change in our national security interests. Furthermore, the impact of our new world political order has yet to be determined and continues to evolve.

In short, the post Cold War era as we knew it has ceased to exist. In the words of former President Bush, "The world has changed at a fantastic pace, with each day writing a fresh page of history before yesterday's ink has even dried."¹ These enormous changes in the world's political climate, require that we now take a step back and reevaluate these differences and their impact on United States national security strategy for the 1990's. President Bush has further pronounced this changing environment as moving from one of forward presence to one of power projection and crisis response.² National strategy is now centered on the growing importance of regional issues. This concern for future regional conflicts has also found its way into our Defense Planning Guidance (DPG). The DPG for example states that: "Regional military threats throughout the world will be of primary concern to the United States."³

As the world shifts from superpower confrontation to regional issues, it should be determined whether or not our new national strategy supports or detracts from regional stability in the world. For example, it could be argued that moving to a CONUS based military force from the previous forward deployed concept could weaken rather than strengthen our national strategy. Further, many countries will see this new strategy as simply another form of isolationism by the United States, and that these countries will be more likely to attempt to influence regional events with little concern for direct U.S. involvement. Without question, one of the greatest areas that remains a high risk for

the United States from a regional perspective is the Middle East.

MIDDLE EAST

The recent Gulf War with Iraq is a glimpse into the future and another indication of the importance which regional issues will play in shaping future world events. The Middle East is considered by many to be a potential area where regional issues dominated by growing religious and ethnic hostility will be a persistent source of instability in the years ahead. This is also an area where the principle focus of many disputes turns on which country has a decided strategic military advantage over its neighbors. As a case in point, focus is directed at the prolonged war between two traditional adversaries, namely Iran and Iraq.

Following the Gulf War, a new United States strategy toward the region has slowly emerged. The principle goal of this strategy is to prevent any single nation in the region from emerging as a dominant power with the ability to control the flow of vital middle eastern oil to world markets.⁴ Besides oil, there is another increasing concern in the Middle East, namely the growing nuclearization within the region.⁵ Leonard Spector a noted expert on proliferation issues has said:

The 1991 Gulf War and the more recent disintegration of the Soviet Union strongly suggest that the most serious challenges to U.S. security in the coming decade are likely to be posed by hostile regional

powers. Such powers will be able to endanger American interests abroad, as well as American forces deployed overseas, neighboring American allies, and, in some cases, even the continental United States. The success of such regional actors will depend in large part on their ability to threaten the U.S. with injury so severe that we may shrink from employing economic or military coercion to achieve national policy objectives. A regional adversary's possession of even a small number of nuclear weapons could be sufficient to deter the U.S. from such actions.⁶

CIA Director Robert M. Gates when he appeared before the Senate Governmental Affairs Committee in January 1992 suggested that "over twenty countries have, are suspected of having, or are developing nuclear, biological, or chemical weapons and the means to deliver them."⁷ In addition, Defense Secretary Dick Cheney has stated that "Over fifteen to twenty nations would possess nuclear weapons by the end of the Century."⁸

It can only be speculated what our national security strategy would have been, had Iraq possessed a limited nuclear weapon capability before the start of the Gulf War. Considering that the United States has had a traditional policy that precludes first use of nuclear weapons, the U.S. nuclear threat may not have appeared credible to Hussein. It is possible then,

that given this nuclear scenario, the United States could have decided against proceeding with Operation Desert Storm based on the perceived threat posed by Iraq.⁹ This would have severely limited Washington's foreign policy options as well as any direct role by the United Nations in ending the Gulf conflict. Additionally, the United States would not enjoy its current level of influence in the region.

With the neutralization of Iraq by U.S. and coalition forces, a power void now exists in the region. The Middle East is now in transition, with a few nation states attempting to dominate the regional scene and gain increased political, economic, and military influence. This comes at a time when the United States lacks a uniform foreign policy which deals with this region in depth. Instead, U.S. national interests have been dominated by a single country, namely Iraq. America's strategy and policy have been concerned with Iraq and its compliance with United Nations directives following the Gulf War. This lack of a balanced regional policy by the U.S., has resulted in our overlooking other countries that pose even greater threats to regional stability in the future. The purpose of this paper is to describe how the Islamic Republic of Iran will emerge as the regional "Superpower" in the future and how Tehran poses the greatest threat to stability and nuclear proliferation in the Middle East. Iran's attempt to dominate events in the Middle East can best be examined by Iran's current effort to acquire a nuclear capability.

To assist the reader, I have outlined this paper into seven major area's which will hopefully provide a better understanding and appreciation of Iran's nuclear weapons program. For example, this paper starts with a general overview of Iran and then transitions into why world proliferation continues as well as an outline of past attempts to curb proliferation. In addition, I have included Iranian lessons learned from Iraq, followed by a detailed discussion of Iran's nuclear weapons program and the impact which China and the former Soviet Union have had on Iran's attempt to develop a nuclear capability. The paper concludes with a number of specific recommendations as part of an overall U.S. policy towards Iran.

ISLAMIC REPUBLIC OF IRAN (OVERVIEW)

Iran, occupies one of the most strategically important area's of the world today. A look at the map reveals that Iran sits astride the vital Straits of Hormuz in the Persian Gulf which is a choke point for approximately 40 percent of the worlds oil supply. Control of the straits would have a major influence on world stability and United States national interests in the region.¹⁰ In addition, Iran now shares a common northern border with several former Soviet Republics such as Azerbaijan, Turkmenistan and Armenia. To the east of Iran is Afghanistan and Pakistan, while in the west lie Turkey and Iraq. Iran's important geographic location therefore provides an ideal opportunity to influence regional political, military, and economic events.

Conflict in the Middle East is not new. The area now dominated by Iran and Iraq has had a long history of warfare. For example, the first Iran-Iraq war dates to 2700 B.C., and was fought around the present city of Basra, scene of the most recent conflict between these two regional powers.¹¹

The United States and Iran have had diplomatic relations dating from 1856. However, it was not until World War II, that the U.S. considered Iran to be an area deemed vital to our national interests.¹² Following World War II, Iran received substantial amounts of foreign military aid because of its border with the Soviet Union and because of its increasing importance as a major supplier of oil.¹³ The Shah's goal during this period was to develop Iran into the chief military and political power in the region. This special relationship between the United States and Iran continued until the 1979 revolution that deposed the Shah and brought to power the Ayatollah Ruhollah Khomeini. The revolution was based on Islamic religious principles and was a significant turning point in Iran's relationship with the United States. During the Ayatollah's rule, Iran's interest in becoming a major power was diminished, as a consequence, Tehran's foreign policy now became increasingly hostile to the West and the United States in particular. The U.S. was considered by Iran to be the "Great Satan" and the center of evil in the world.¹⁴ In addition, religion had always been important in Iranian history and politics, and today it shapes everything from personal relations and family life, to key

foreign policy decisions.¹⁵ Following the Iran-Iraq War and the death of the Ayatollah in June of 1989, Iran again renewed efforts to become a major regional power and assert its influence in the Gulf.

During the past two years while world attention has been diverted by Iraq, Iran has launched a large scale military buildup. Its goal is to again become the major power in the Persian Gulf.¹⁶ Likewise, Iran has also initiated improved diplomatic relations with the Asian republics of the former Soviet Union that are predominantly Islamic. In addition, several recent published articles have been highly critical of Iran's attempt to obtain dual-use technology, especially technology that could be used to support a nuclear weapons program.¹⁷ According to Richard Mackenzie, writing in Air Force Magazine:

Tehran is apparently pursuing the wherewithal to build nuclear weapons. CIA and other analysts say there are signs that Iran has initiated a nuclear development program and that, given the state of Iranian technical expertise and the rate at which the program is moving, Iran could probably produce a nuclear bomb around the turn of the century.¹⁸

Leonard Spector is also concerned with Iran's growing interest in nuclear weapons and rearmament.

Iran, whose military capabilities include ballistic missiles and chemical weapons, has launched a major rearmament program. Given the country's efforts to sustain its nuclear program throughout the Iran-Iraq War...there is reason for concern that Iran, like Iraq will launch a nuclear weapons effort to avoid being caught at a strategic disadvantage... likely require ten years to achieve success, and might already be underway. Despite Iran's adherence to the Non-Proliferation Treaty (NPT), its nuclear activities deserves (sic) continuing scrutiny.¹⁹

With the elimination of Iraq as a regional threat in the Middle East and the breakup of the former Soviet Union, Iran now has the opportunity to fill the existing power void in the region and emerge as a leading political, military, and economic power. Iran's attempt to obtain nuclear weapons in support of its goals are strong indications for continued long-term instability in the Middle East. It would be in the best interests of the United States and other countries in the region to strive for a balance of power that precludes Iran from emerging as a regional nuclear force.

WHY PROLIFERATION CONTINUES

Basic nuclear weapons technology is now fifty years old. As this technology becomes more prevalent, it is increasingly

difficult to control and to prevent any determined nation from developing a nuclear weapons capability. Furthermore, Third World countries such as Iran in possession of nuclear weapons would raise several serious international security issues. For example, these nuclear nations could threaten critical energy interests or the security of other allied states. Simultaneously these nations could increase insecurity in the region and make regional conflicts more precarious and difficult to manage.²⁰

The first step in gaining a better appreciation for nuclear proliferation is to fully understand the fundamental reasons behind national compulsion to obtain weapons of mass destruction in the first place. One of the most basic and most important reasons is the prestige factor. Many second and third tier countries feel that possession of nuclear weapons allows them a greater say in a wide range of military, political, and economic issues throughout the world. In effect, having a nuclear capability bestows the perception of superpower status. Another reason is that the United States and the former Soviet Union reduced their international commitments, consequently, nations who once relied on the superpowers for security may elect to develop their own capability. The last reason is that countries such as Iran may seek to influence events by being the only nuclear power in the region, or to offset the military advantage of other regional nuclear powers such as, Pakistan and India.²¹

The civilian nuclear power industry has been the primary origin of spreading nuclear technology and materials to the Third

World. Because of the ready availability of nuclear technology and materials, those countries determined to obtain a nuclear capacity will most likely succeed.²² However, simply because a country has acquired the capability does not mean an operational or deployed nuclear weapons system will be built and developed. Only if a country feels that nuclear weapons provide a decided edge as outlined earlier, will the country proceed with development and eventual deployment.²³

Several Third World countries such as Iran are now capable of undertaking development of a nuclear weapons program. However, unlike governments of most present nuclear nations, Iran lacks a stable civilian leadership, has displayed a propensity to use weapons of mass destruction in the past (chemical and ballistic missiles), and is now openly attempting to acquire more lethal weapons technologies.²⁴

The pressure to proliferate arms in the Middle East has grown because most conflicts in the region defy any short-term solution. The vast majority of peace settlements have proven to be only temporary at best. Additionally, the cost to acquire and maintain conventional weapons has steadily grown. Therefore, it may appear to Iran, that a more cost effective method of maintaining Iran's regional influence may be to turn to nuclear weapons as a less expensive alternative.²⁵ For example, the Arms Control and Disarmament Agency believes that Middle Eastern States spend an average of 11 percent of GNP on military forces, compared to only 5 percent for the United States. Regional

military expenditures in the Middle East now average 32 percent of total government expenditures. No other region in the world averages more than 20 percent.²⁶ Iran also lost considerable amounts of equipment during Tehran's war with Iraq. As a result, Iran now faces a tremendous investment in rebuilding its conventional forces that may serve to only cripple Iran's economy at home. Failure to address these issues may result in Iran missing its present opportunity to emerge as the dominant power broker in the Middle East.²⁷

While Iran is increasing its military expenditures, the continued improvement in East-West relations has resulted in large reductions in the defense budgets of most other countries in the world, including the United States. This trend has had a pivotal impact on the profits of many international corporations whose primary business is driven by the defense industry. Decreasing profits may force many firms to sell both nuclear technology and know-how to any Third World country willing to pay. Even more troubling is the sale of dual use technology, technology that has both a commercial as well as a military application to countries such as Iran.²⁸

One of the greatest stumbling blocks to curbing nuclear proliferation is the inability to detect nuclear weapons programs in the weapon production's developmental stages.²⁹ An example is the recent revelations concerning Iraq's undisclosed nuclear weapons program, in violation of the NonProliferation Treaty (NPT) of which Iraq is a signatory. Furthermore, proliferation

now seems to point to extremist states like Iran with unstable and autocratic governments.³⁰ Steve Fetter a well know expert in the nuclear weapons field states:

There are five reasons that we should be at least as concerned about the proliferation of weapons of mass destruction in the future as we have been about nuclear proliferation in the past: (1) proliferation complicates U.S. policy; (2) crisis instabilities are likely to be more severe; (3) the probability of of inadvertent or accidental use is likely to be greater; (4) transfers to terrorist or sub-national groups are more likely; (5) at least some of the future possessor nations are likely to be politically unstable, aggressive, and difficult to deter.³¹

CURBING PROLIFERATION

Since 1976, official United States policy has been to oppose the spread of nuclear weapons proliferation, especially in the developing countries in the explosive Middle East.³² In general, this strategy has centered on the enforcement of existing nonproliferation guidelines via previously established treaties, economic controls, safeguarding of technology and design information, and voluntary inspections of existing nuclear facilities. To date, these efforts have only been successful in slowing the spread of proliferation, these efforts have not been successful however in totally eliminating proliferation. A case

in point which outlines the need for improved safeguards is the recent exposure of Iraq's attempt to develop and deploy a nuclear weapons capability. Iraq's program, including Tehran's extensive research efforts, went largely undetected until the start of United Nations inspections following the Gulf War. Iraq's nuclear program points out the current difficulty in assessing the status of existing nuclear enterprises especially in closed societies, and illustrates the adequacy of present weapons control measures to deal with the problem. Successfully curbing proliferation requires that a number of problems be addressed that span several broad areas such as limitations with existing nuclear safeguards, the inability of current verification systems to detect nuclear programs and the limitations of export control policies that attempt to prohibit the transfer of dual-use technology.³³

The key to curbing proliferation has been the International Atomic Energy Agency (IAEA), a United Nations organization located in Vienna Austria and is responsible for managing international safeguards. Currently, there are over 100 member nations who belong to the IAEA. First pushed by President Eisenhower, the IAEA was established in 1957 to provide for the peaceful use of nuclear technology, to set up nuclear safeguards, and to monitor various bilateral and multilateral agreements. Over the years, the IAEA has become the key for the transfer of nuclear technology for peaceful purposes however, it has met with only partial success. Probably its greatest drawback is that

membership and compliance is strictly voluntary with few if any penalties for non-compliance.³⁴

The principle vehicle under the IAEA for controlling proliferation is the 1968 Treaty on Non-Proliferation of Nuclear Weapons (NPT). The NPT requires that countries who had not detonated a nuclear explosive prior to 1 January 1967, pledge not to develop, test, or deploy nuclear weapons. The treaty further requires that member states accept voluntary safeguards and inspections. Over 75 percent of United Nations members have signed the NPT.³⁵ In addition, the NonProliferation Treaty (NPT) has designated the IAEA as the organization to verify treaty compliance. It is important to note at this point that Iraq, prior to the Gulf War had signed the NPT Treaty.³⁶

Another attempt to curb proliferation has been the actions of the Nuclear Suppliers Group (NSG). The NSG is an organization consisting of twenty-seven member nations including the United States. The group is committed to establishing procedures to be followed by member nations to control the export of dual-use technology. As with the NPT, the Nuclear Suppliers Group is a voluntary organization that supports the peaceful application of nuclear technology. The greatest problem with the NSG is the group's inability to identify and restrict the exportation of nuclear technology by member nations.³⁷

A final area that has played a part in nonproliferation is the development of nuclear-weapons-free zones. Historically, the U.S. has had two different approaches to this idea. The first has

been the global nonproliferation approach that eventually led to the adoption of the NonProliferation Treaty (NPT). The other approach has been curbing proliferation by means of a regional or zonal approach. The United Nations in December 1975 defined a nuclear-weapon-free zone by declaring that: "A nuclear-weapon-free zone shall, as a rule, be deemed to be any zone, recognized as such by the General Assembly of the United Nations, which any group of states, in the free exercise of their sovereignty, has established by virtue of a treaty or convention."³⁸ Currently, several zones have been established throughout the world. The first zone in Latin America and the Caribbean was described by the Treaty of Tlatelolco. The other zones are in the South Pacific and the Antarctic. Under consideration by the United Nations is establishment of a nuclear-free-zone in the Middle East. It is interesting that the idea of a nuclear-free-zone in the Middle East was first proposed by Iran to the United Nations in 1974.³⁹

The major roadblock to establishing a nuclear-weapons-free zone in the Middle East has been the continued tension between Israel and the Arab world. The initial emphasis by Iran to push for a nuclear-weapon-free zone is that at the time, Israel was considered to have already developed a nuclear weapons capability. Accepting the conditions of the treaty would have required Israel to declare itself as a nuclear capable country, to accept IAEA safeguards, and finally to dispose of any weapons stockpiles Tel Aviv might possess.⁴⁰

The last difficulty in curbing nuclear proliferation is the problem of a nation not declaring itself a nuclear power even if the capability exists. The current level of weapons technology as stated earlier is widely available, and allows countries to build nuclear weapons today without the need for testing. For example, Israel and South Africa are considered by many to have an extensive nuclear capability, but remain "undeclared." This provides both countries with the world perception of being nuclear capable, which carries significant political clout, but precludes these countries from conforming with IAEA safeguards or restrictions imposed by the Nuclear NonProliferation Treaty (NPT).

In summary, curbing proliferation in the future will prove to be a serious problem. Many experts feel that ending proliferation entirely is not possible, that the best that can be hoped for is to manage proliferation and slow its progress. Both Presidents Nixon and Reagan during their time in office believed that the emphasis should be on control as opposed to total prevention. In addition, both felt that strict compliance with nonproliferation cost the United States important commercial sales in foreign markets, and bred resentment toward the United States by a number of countries around the world.⁴¹ Even the IAEA has admitted that the agency is incapable of detecting the diversion of significant quantities of nuclear fuel in countries that have existing nuclear power programs. For example, in the United States a country with extensive safeguards, large

quantities of nuclear fuel remain unaccounted. Since the start of the nuclear era, a total of 8000 pounds of fuel are missing.⁴² Contributing to this problem is the limited scope of existing safeguards under the IAEA, Nuclear NonProliferation Treaty, and Nuclear Suppliers Group (NSG). Furthermore, the national technical means of verification is lacking, which combined with limitations on export controls, results in an environment in which preventing proliferation by a determined government is difficult at best. Efforts to curb proliferation have been only partially successful. The best that can be hoped for is that proliferation can be slowed to the point that it can be effectively managed.

IRANIAN LESSONS LEARNED FROM IRAQ

Iraq's extensive nuclear weapons program first came to light in 1991 by a UN appointed Special Commission. This commission has clearly shown the current inadequacies related to curbing proliferation. Magnifying this problem is the fact that over the years, the nuclear power industry has become a very effective lobby group. The industry has focused primarily on easing export restrictions of nuclear technology to countries such as Iraq and Iran who were only engaged in what was termed "peaceful" nuclear research. Iraq not only signed the NPT, but also signed a safeguards' agreement with the IAEA that called for on-site inspections every six months.⁴³ Based on evidence obtained by the Commission, it is now known that Iraq's primary nuclear

research facility was never inspected by the IAEA. In addition, seven plants involved with nuclear testing and design, and twenty plants dedicated to uranium enrichment and centrifuges were never even identified much less inspected by the IAEA.⁴⁴

Iraq's program was formed over a fifteen year period. At no time did United States intelligence agencies prove capable of detecting the extent of Iraq's efforts. However, even when proliferation issues surfaced, it appears that political support was lacking to bring violator nations such as Iraq back in-line with IAEA safeguards. Probably the greatest lesson learned is that nations such as Iraq and Iran are capable of "serious scientific and technical accomplishments, which we often underrate in the West."⁴⁵

Iran also learned several valuable lessons because of Tehran's its war with Iraq. First, Iran clearly understood that advanced weapons, not just ideological commitment, would be the most important determinant in waging any future war with Iraq. In addition, "The Iraqi defeat in the Gulf War by a superlatively equipped and better trained Western led coalition with a vast technological superiority reinforced in a dramatic manner the lessons of the Iran-Iraq War."⁴⁶ Second, Iran was determined that Tehran would not be taken by surprise as it had been during the war with Iraq. Speaker Rafsanjani said: "... our armed forces must reach a level suitable for protecting the revolution so that no one will dare attack us."⁴⁷ Third, Iran was also concerned that Iraq would remain a serious threat in the region,

and that any number of gulf states could form a U.S. sponsored anti-Iranian front.⁴⁸ Probably the most important lesson learned is that Western nations, especially the United States now have established an increased presence in the Persian Gulf which appears as a

long-term threat to their (Iran's) national interests, territorial integrity and the security of their revolution because of the West's rising fear of Iran and Islam. Iran is not impressed by Western calls for arms control in the Middle East in the aftermath of the Gulf War. They are seen as plans by the West to funnel large quantities of sophisticated weaponry to their regional allies, while keeping potential enemies of the West disarmed. The Iranians feel that they have to stay in the arms race....⁴⁹

IRAN AND ITS NUCLEAR WEAPONS PROGRAM

Iraq has clearly displayed that a determined Third World nation, who can invest huge amounts of time, money, and effort is capable of developing a nuclear weapons program. Evidence seems to suggest that Iran has embarked on a dogged program to "go nuclear" as part of its continued rearmament program and to emerge as a regional power broker in the Middle East before the end of the decade.⁵⁰

Iran's renewed interest with nuclear weapons appears to date from the death of Ayatollah Khomeini in June of 1989, combined

with Iran's defeat by Iraq during the Iran-Iraq War and the announcement by Iran of a new five-year Plan for 1990 through 1994. The primary benefit of the new plan was to allow the government to borrow money from international markets to help finance growth at home. Approximately twenty-seven billion dollars was borrowed in this manner. Of this amount, 7.5 billion was programmed for "strategic industry", with ten billion dollars committed to the purchase of foreign arms primarily from China, Russia, and North Korea. Both French and German banks are the principle money lenders to support Iran's five-year Plan.⁵¹

Speaker Rafsanjani in discussions over Iran's determination to acquire weapons of mass destruction has previously stated:

With regard to ... radiological weapons training, it was made very clear during the war that these weapons are very decisive. It was also made very clear that the moral teachings of the world are not very effective when war reaches a serious stage and the world does not respect its own resolutions and closes its eyes to the violations and all the aggressions which are committed on the battlefield.

We should fully equip ourselves both in the offensive and defensive use of...radiological weapons. From now on, you should make use of the opportunity and perform this task.⁵²

Rafsanjani by his remarks, highlights those reasons that

would induce a country to acquire nuclear weapons. First, nuclear weapons can be a decisive weapon in war, and have significant value by the mere fact of possession. Furthermore, nations cannot rely on international sanctions to prevent proliferation.⁵³ Iran has further stated that Tehran expects the role of the U.S. to decrease in the years ahead, but does not rule out intervention in regional affairs. At the same time, Iran has suggested that it has "every right to purchase the weapons it requires for defensive purposes."⁵⁴

Iran's early nuclear weapons program had its beginnings in the 1960's under the Shah with an agreement between the United States and Iran for the peaceful use of nuclear energy and the construction by the United States of a small research reactor in Iran. In the 1970's, Iran signed the NPT and established the Atomic Energy Organization of Iran (AEOI). Furthermore, the oil crisis and the 1973 Mideast War were instrumental in the Shah embarking on an ambitious program to construct twelve nuclear power plants within Iran. Although considered to be for peaceful purposes only, many individuals such as Menashe Amir, an Israeli expert on Iran, felt the plants were for "The Shah's plan to make his nation into a nuclear power."⁵⁵ With the fall of the Shah, only two of the power plants were actually placed under construction, and work on these were stopped when Ayatollah Khomeini took power in February 1979.

Under the Ayatollaha, Iran's nuclear program lay dormant. Nuclear experts trained under the Shah fled the country with only

limited work taking place at the U.S. constructed research reactor facility in Tehran.⁵⁶

By late 1980 however, Iran again displayed renewed interest in nuclear power by seeking help from a number of countries in completing those projects such as the Bushehr reactor and others initially started by the Shah. However, attempts to use foreign assistance and technology to rebuild Iran's program have met with resistance and with difficulty in skirting IAEA safeguards. Many countries have been reluctant to become involved, at least publicly with Iran's nuclear program. Iran has therefore begun to mirror the Iraqi program of the 1980's. This approach includes an ambitious program to train thousands of students in nuclear related subjects at various universities in the West, development and concealment of a number of remote sites to conduct research, utilization of agents overseas to acquire technology and equipment, and attempting to convince many Iranian scientists to return home.⁵⁷

In 1984, West German intelligence was the first to provide information that Iran had renewed its interest in nuclear weapons. The visit by German engineers was primarily to determine the prospect of completing the two nuclear reactors that were initiated under the Shah and damaged during the war with Iraq. In the same year, Iran opened a new research institute, "which is believed to have become one of the focal points of the clandestine nuclear weapons program."⁵⁸

By the late 1980's, Iran had also been working hard to

establish relations with countries who possessed nuclear expertise and to seek training for Iranian scientists. For example in 1987, Argentina reached agreement to sell Iran highly enriched uranium to supply Iran's research reactor in Tehran. Pakistan and Iran agreed to provide "technical cooperation in the military-nuclear field that included the dispatch of 30 Iranian nuclear scientists to Pakistan for training." This training was to take place at the Institute for Nuclear Science and Technology in Islamabad.⁵⁹ South Africa has been listed as a country that has shipped large quantities of uranium to Iran in the past. However, in 1989, Iran discovered large uranium deposits in its own eastern provinces that now provide an unlimited supply of uranium that can be enriched to weapons grade material and is free from IAEA safeguards.⁶⁰ India has recently signed an agreement with Iran to eventually build a research facility with an output of ten megawatts at the Moallem Kalayeh Center. Recent intelligence suggests that Iran has perhaps a total of ten secret nuclear research centers, and a secret uranium processing center at Karaj. These facilities are denied by Iran.⁶¹

The majority of opinion points to Iran's renewed interest in joining the nuclear club. The only questions are just how far along Iran has taken its revised program, how long it will take Iran to develop a nuclear capability, and how much money is being committed by the Iranian government to support its nuclear programs. The importance of events taking place in neighboring Iraq and the exposure that Baghdad's secret nuclear weapons

program has gained following the Gulf War, have not been lost on Iran. While attention is focused on Iraq, Iran seems content to give the impression Tehran is complying with the IAEA and NPT safeguards on current facilities, while simultaneously conducting extensive research at several undeclared locations within the country. Since the late 1980's, and following the Gulf war these efforts have intensified. General Uri Saguy who heads up Israel's military intelligence, as well as British and French intelligence authorities all claim that Iran will have a capability by the end of the decade.⁶² Iran claims that any attempt to develop a nuclear capability is strictly for commercial power reasons.

Iran has stated in the past that it has a goal of generating 20 percent of Iran's commercial power needs with nuclear reactors. However, this goal is suspect, especially when you consider that Iran has one of the largest proven oil reserves in the world.⁶³

To help pay for Tehran's expanded military buildup, and to obtain technology and high-tech equipment from abroad, Iran is now generating over four million barrels of oil a day. Iran has now become the second largest exporter of oil in the world, trailing only Saudi Arabia.⁶⁴ As Iran generates increased oil revenues for the purchase of weapons and equipment, several European, Asian and U.S. companies are doing a land office business in trading with the Iranian government. German exports have risen to \$5 billion dollars, while Japanese and Italian

exports have increased to over \$2.0 billion each. U.S. exports have also shown a steady improvement from none in 1989, to over \$650 million by 1992. In addition, U.S. oil companies are now ranked among the largest customers of Iranian oil products while Iran remains on the State Departments list of countries which sponsor international terrorism. Overall, Iran has tripled technology imports since the 1980's to over \$28 billion in 1992. This technology includes such items as, "radar testing devices, navigation equipment, oscilloscopes, logic analyzers, fiber optic cables, digital switches, and remote sensors."⁶⁵

One of the greatest problems in the current rush to service Iran by Western nations, is in the control of high technology items that are considered to have a dual-use capability. For example, last year alone, U.S. firms sold more than \$180 million dollars in items classified as dual-use. As noted earlier in this report, the control of dual-use technology under nonproliferation safeguards is difficult at best. Of added concern, is the fact that the trend in technology transfer shows no sign of decreasing. With Iran spending tremendous amounts of money on world markets, which some experts say includes \$200 million dollars annually for nuclear technology alone, there is no shortage of corporations willing to maximize profits by selling technology to the Iranian government. An additional problem for the United States is the U.S. Department of Commerce's approval of many questionable sales to Iran. Many of these sales have taken place even following concerns raised by

both the Department of Energy and the Department of Defense. For example, over a four year period from 1987 to 1990, 60% of all Iranian license applications to the U.S. were for equipment on the "Nuclear Referral List." This is equipment that is considered to have utility in weapons production.⁶⁶

IRAN, CHINA, AND THE FORMER SOVIET UNION

Although Western nations have played a role in Iran's nuclear development program, it is only recently that China and the countries that make up the former Soviet Union have become involved with Iran's efforts to emerge as a dominate regional power. China's foreign military aid falls well below that of Western nations such as France and the U.S.; however, China has increasingly become active in supporting Third World countries like Iran. For example, China provided military support to both Iran and Iraq during the latest conflict between these two countries.⁶⁷

China has become the largest exporter of military equipment to the Third World, and the largest exporter of arms and equipment to Iran.⁶⁸ Several reasons have been advanced for China's renewed interest in the Middle East. These motives are primarily those of self-interest and include National self-esteem, global influence, regional preeminence, enhancement of China's own security interest's, and to support domestic economic development at home.⁶⁹

In the past, China has viewed the IAEA and the Non-

Proliferation Treaty (NPT), as primarily designed by the West and the two Superpowers, the United States and the former Soviet Union to preclude other nations from acquiring the same capability. Writing in International Security, John Lewis says that when it comes to proliferation issues, China considers itself a "target" rather than a "partner." China cannot understand why Beijing was never asked to participate or join the international Missile Technology Control Regime to prevent the spread of ballistic missile technology.⁷⁰ China has always considered itself closely associated with the Third World, and the U.S. can anticipate that this influence will gain momentum in the future in the form of increased arms sales and technology transfers to countries similar to Iran. These arms sales and technology transfers will provide China not only increased regional influence in the Middle East, but will also provide much needed capital to support China's attempt to improve its economy.

Iranian President Rafsanjani was recently quoted as saying that, "China is one of Iran's best friends," and this friendship has resulted in direct support for Iran's nuclear weapons program.⁷¹ China's Nuclear Energy Corporation (CNEIC), has agreed to sell and help construct a 27-megawatt research reactor, and provide equipment required for uranium enrichment. However, recent reports suggest that the U.S. has been successful in stopping China from proceeding with the sale, at least for the immediate future.⁷² In addition, some Chinese technicians have been detected at the Isfahan nuclear research center.⁷³ This

effort is part of a 10-year agreement on scientific cooperation between China and Iran. China is also providing Iran with technical help on how to mate nuclear weapons to both aircraft and missile delivery systems.⁷⁴ In the end, the relationship between China and Iran, especially on arms and technology transfers can be expected to continue. As evidence of this growing relationship with Iran, Hua Liming, the Chinese ambassador to Iran has said that "Nuclear cooperation between Iran and China for peaceful purposes and to build a power plant will continue despite objections from the West." In addition, China has said that Beijing will review its decision to sell Iran a nuclear research reactor following the U.S. presidential elections.⁷⁵

While Iran is cultivating its relations with China, Tehran is also attempting to gain growing influence with the former Soviet Republics. In November of last year, the Daily Report of the Foreign Broadcast Information Service, published a news article broadcast by Iran that reported on the visit by Mr. Islam Karimov, president of Uzbekistan.⁷⁶ Besides stressing the importance of Iran in world affairs and the Middle East, Mr. Karimov went on to say that:

We are witnessing the increasing credibility of this country (Iran) in Central Asia and the world. For this reason, due to the Islamic and cultural links between the two nations, we seek cooperation and close and friendly ties. We consider the Islamic Republic of

Iran to be our true friend. And that Iran and Uzbekistan would be able to bring peace and stability to the region. We believe that countries with strong cultural and historical bases should work with each other and refrain from relying on big, arrogant powers.

During the same month, Iran radio reported on another visit by officials from one of the former Soviet republics, this time Deputy Foreign Minister Tokayev from Kazakhstan. Tokayev suggested the need to expand relations with Iran and his concern that efforts are being made to "propound falsities such as the sale of nuclear arms to Iran." The Iranian Deputy Foreign Minister also said that Iran, "Is not seeking nuclear weapons and believed that our region should be free from such weapons."⁷⁷

Several former Soviet republics face increasing ethnic, religious, political, and social problems with no short term solution in sight. These same republics are now turning to Iran, who the republics see as the emerging dominate power in the Middle East. This rapprochement with Iran also serves the purpose of spreading Islamic Fundamentalism and to influence the internal affairs of the Muslim republics. At the same time, Russia and other former Soviet Republics are attempting to obtain hard currency by increasing exports to boost the CIS slipping internal economy. Iran, with money generated from expanded oil production may be an excellent candidate as a new trading partner. Unfortunately, this trade relationship has centered on the export of highly sensitive military equipment and technology

to Iran. Next to China, Russia has now become the largest exporter of weapons and related military technology to feed Iran's rearmament program. Nonetheless, according to the Russian Ambassador to Iran, Vladimir Gudev, "Russia will continue to cooperate with Iran in defense and technology...does not include weapons of mass destruction...to preserve the regional balance of power."⁷⁸

With this background, many disturbing reports have surfaced which suggest that Iran has its sights set on using Iran's newly acquired influence in the former Soviet republics to support Tehran's nuclear weapons' program. This trade relationship according to some reports, has resulted in Iran reportedly negotiating with the Republic of Kazakhstan to purchase nuclear warheads. In addition, some reports claim that Iran may also be planning to fit these warheads to current inventories of Chinese Silkworm missiles. U.S. intelligence reports have not been able to confirm the sale and there is no indication that any nuclear warheads have been delivered.⁷⁹

Besides Kazakhstan, the Republic of Ukraine that also has nuclear weapons on its soil, has recently shown a reluctance to give up those weapons and make the republic a nonnuclear power. Vice Prime Minister Igor Yukhnovsky insists that "the missiles in Ukraine belong to the Ukrainian people...We can sell these nuclear warheads to the highest bidder...to nuclear states...or maybe another state, depending on which state pays the most." Ukraine who has yet to sign the Nuclear Nonproliferation Treaty

(NPT) appears willing to use the nuclear card as leverage to gain both security guarantees and economic aid from Western nations, including the United States.⁸⁰

At the same time that Russia is providing large quantities of conventional weapons to fuel Iran's rebuilding effort, there is growing concern that some of these arms transfers may involve the transfer of nuclear technology, and by some reports, the transfer of nuclear scientists.⁸¹ Unlike most of the former Soviet republics who have both an ethnic and religious relationship with Iran, Russia sees Moscow's relationship as essentially one of protecting its vital interests in the region and as a means of gaining badly needed foreign capital by selling arms to keep Russia's troubled economy afloat. Caught up in this issue is the concern that in Moscow's haste to court Iran, Russia may either intentionally or otherwise provide nuclear technology, equipment, and possibly some of its specially trained nuclear scientists to Iran.

Both China as well as several former Soviet republics have increasingly sought closer economic, political, and military ties with the Islamic Republic of Iran, which is seen as an emerging regional power in the Middle East. Part of this relationship, is the growing evidence that Iran is using this opportunity to continue to feed Tehran's nuclear weapons program. The republics of the former Soviet Union are particularly troublesome. First, from the standpoint of their close geographic location and traditional ethnic relationship's with Iran, as well as their

need for quick capital to fuel the republics' economic development.

CONCLUSIONS

When the "new world order" is examined, it can quickly be seen that from a regional outlook, the Middle East will emerge as the number one security interest for the United States. Moreover, when it comes to making a determination concerning U.S. "vital" national interests in the region, the perspective can be further narrowed and it can be simply said that it pertains to the Persian Gulf region and its large oil reserves. The one country that dominates this region from a geographic, political, economic, and military standpoint is Iran.

Dr. John D. Anthony of the National Council on U.S. Arab Relations, has outlined four potential "flashpoints" in the Middle East. The first is Iraq and Baghdad's implementation of United Nations sanctions. Second, The Arab-Israeli conflict. Third, Iran and its rearmament program. Fourth, nuclear proliferation in the region.⁸²

Iran fits this portrait well as the self proclaimed "Guardian of the Gulf" and has embarked on a large rearmament program that includes a quest for weapons of mass destruction. Iran is taking advantage of the "superpower" void in the Middle East and the collapse of the Soviet Union to emerge as the dominate power in the region. To accomplish this goal, Iran has determined that possession of nuclear weapons is in Tehran's national interests, and that these weapons will serve as a hedge against U.S.

involvement in Iranian affairs. Iran has also concluded that having a nuclear capability will provide tremendous leverage in regional affairs and serve as a counterweight against Israel.

This quest for nuclear weapons has been aided by weak export policies that have allowed the transfer of sensitive technology and equipment to Iran by several Western nations. Furthermore, inadequate controls under existing nuclear safeguard procedures by the IAEA have further complicated this problem. Just as important, is the lack of a "regional" national policy by the United States that could attempt to deal with Iran and other nations in the region from a military, political, and economic standpoint.

National leaders in Iran have issued several conflicting accounts concerning Iran's nuclear program. For example, some have stated Tehran's program is for peaceful energy purposes only, while others say the program is to obtain an Islamic nuclear capability to offset Western dominance in the region. In any event, Iran has become preoccupied with an attempt to obtain a nuclear capability, and it remains to be seen if the Iranian program is for peaceful purposes or not. However, considering that Iran is one of the most energy rich nations on earth, it must remain suspect that any nuclear program will be strictly used for peaceful commercial power purposes. It remains important for the United States and other nations to closely monitor Iran's nuclear program and to continue to take steps to preclude Iran from joining the nuclear club.

Without question, regional nuclear proliferation complicates U.S. strategy and poses serious concerns for future stability in the region. It is in the interests of both the United States and the United Nations to play a continued role in curbing proliferation, especially in the Middle East and Iran in particular. A first step is the need to strengthen existing nuclear safeguards under the IAEA and the NPT. Areas of particular concern are the control of dual-use technology and technology used strictly for nuclear weapons programs. One of the most important areas is to change voluntary compliance and inspections to mandatory compliance and inspections under the NPT. Additionally, significant penalties should be developed for both non-compliance and for nations who refuse to sign the NPT. Furthermore, technical intelligence, the ability to monitor a nations nuclear program remains inadequate. Iraq is a good example of this monitoring deficiency. The U.S. should place a high priority on improving American technical intelligence capability to properly assess Iran's progress. Coupled with this is the need to make more technical intelligence available to the United Nations for forcing compliance with existing safeguard programs.

Currently, the U.S. Department of Commerce has the lead in controlling export of dual-use technology and monitoring foreign trade agreements. As a result, the primary driver is to insure that U.S. trade does not suffer based on export restrictions. This relationship has allowed significant quantities of items

classified as dual-use to leave the United States over the objections of both the Department of Defense and Department of State. Consideration should be given to revising this procedure and allow the Department of Defense to have final veto power over equipment classified as dual-use. In addition, trade agreements between Iran and U.S. corporations that support Iran's rearmament program should be stopped. An example is the large trade in oil between U.S. corporations and Iran. U.S. policy should be to keep Iran's economy depressed, thereby forcing Iran to focus on internal economic problems and divert resources away from Tehran's rearmament programs.

From a strategic standpoint, U.S. policy should be to find a counterweight to Iran's growing influence in the region and to strive for a continued balance of power. Next to Saudi Arabia, Turkey is a nation that can suppress Iran's dominance in the Middle East. For example, Iran has already approached Turkey and stressed the need for "regional cooperation" and the need to strengthen relationships between the two countries.⁸³ This is especially true concerning the former republics of the Soviet Union who are attempting to align themselves with emerging regional powers. Turkey continues to be a vital ally to the U.S. and has tremendous political, ethnic, and economic influence in the region. At the same time, the U.S. has been presented with an excellent opportunity to acquire influence with the new Central Asian Republics of the former Soviet Union. These emerging nations are striving for economic independence and U.S. policy

should be to provide economic aid to include financial assistance that is desperately needed to rebuild these Republics' economies. Combined with economic aid the U.S. should intensify Washington's efforts to convince these Republics to dismantle existing nuclear weapons before these weapons fall into the possession of Iran. The economic link with the U.S. can be further used to influence regional policy issues and to further depress Iran's ability to influence events in the former republics of the Soviet Union.

Tied to any issue in the Middle East is eventual settlement of the Arab-Israel dispute. Central to this dispute is the concern in the Arab community, especially in Iran of Israel's implied nuclear capability and the threat posed to the Arab world. Iran views the Israeli nuclear weapons program as very destabilizing for the region and is the principle reason why Iran feels the need to serve as a counterweight in the Middle East. U.S. policy must be to encourage Israel to sign the Nuclear NonProliferation Treaty and to comply with established international safeguards. Until this basic problem is resolved, countries like Iran will continue to feel the need to develop a indigenous nuclear deterrent. A balanced U.S. policy towards the region which does not spotlight Israel will go a long way in resolving this issue.

In summary, Iran presents the U.S. with a significant strategic challenge in the years ahead. Tehran has embarked on a program to develop a nuclear capability that by some projections

could occur within the next five to ten years. A nuclear capable Iran located in the vital Persian Gulf region could be a disruption to regional stability and impact on vital U.S. national interests. Iran is already attempting to influence political events in countries such as Sudan, Egypt, Lebanon, Algeria, Tunisia and Bosnia.⁸⁴ Iran has decided that acquiring a nuclear capability is in Tehran's best interests, and will provide added prestige and power in the region. Just as important, Iran views possession of nuclear weapons as a hedge against U.S. involvement in Middle East affairs, and as a counter-weight against Israel. As seen by events in Iraq, nuclear weapons in the hands of an unstable government will only raise not lower the nuclear threshold. It is in the best interests of the United States to develop a revised foreign policy program which views Iran as the dominate threat in the Middle East and provides a balanced approach concerning Israel, and the Middle East in general, with emphasis on controlling the spread of nuclear proliferation.

ENDNOTES

1. George Bush, "A New Era of Reciprocal Arms Reductions", Arms Control Today, no.8 (October 1991) : 3.
2. Ibid., 3.
3. News Analysis, "Pentagon Wants to Stay Lonely at the Top", Arms Control Today, (March 1992): 19.
4. John M. Deutch, "The New Nuclear Threat", Foreign Affairs Journal, Fall 1992: 111.
5. Ibid., 113.
6. Leonard Spector, "Regional Threats From Nuclear Proliferation: Minimal Deterrence And The Need For Prevention", Third Annual Strategy Conference, Strategic Studies Institute, U.S. Army War College, February 1992.
7. Testimony by CIA Director Robert M. Gates before the Senate Governmental Affairs Committee, January 15, 1992. Quotes taken from the Committee's transcript of the hearings.
8. BBC World Service, January 14, 1992.
9. Ibid., 4.
10. James Coyle, lecture series, "Regional Strategic Appraisals: The Middle East", U.S. Army War College, Carlisle, Pennsylvania, 5 January 1993.
11. Richard Gabriel, and Karen Metz, A Short History Of War: The Evolution of Warfare and Weapons, Strategic Studies Institute U.S.Army War College, Carlisle Barracks, Pennsylvania, (June 1992): 7.
12. Nikki Keddie, and Mark Gasiorowski, Neither East Nor West: Iran, The Soviet Union, and The United States, (Yale University Press, 1990), 146.
13. Ibid., 146.
14. Ibid., 13.
15. John Limbert, Iran at War With History, (Westview Press, Boulder, Colorado, 1987), 19.

16. Ahmed Hashim, "Resurgent Iran: New Defense Thinking and Growing Military Capabilities," Paper Prepared for Institut Francais pour Relations Internationales.
17. Steve Coll, "Technology From West Floods Iran," Washington Post, November 10, 1992, A-28-29.
18. Richard Mackenzie, "Iran Resurgent," Air Force Magazine, July 1992: 78.
19. Leonard S. Spector, Nuclear Ambitions, Westview Press, 1990. 203.
20. Rodney Jones, Steven Hildreth, Modern Weapons and Third World Powers, Westview Press, Boulder Colorado, 75.
21. Martin Goldstein, Nuclear Proliferation: International Politics in a Multinuclear World, University Press of America, Lanham, Maryland, 1-6.
22. William A. Schwartz, Charles Derber, The Nuclear Seduction, University of California Press, Los Angeles, California, 1990, 174-175.
23. Stephen M. Meyer, The Dynamics of Nuclear Proliferation, University of Chicago Press, Chicago, Illinois, 1984, 5-6.
24. Anthony H. Cordesman, "Weapons of Mass Destruction in the Middle East," The Royal United Services Institute For Defense Studies, 1991, 1.
25. Cordesman, p. 12-16.
26. Cordesman, p.3.
27. Cordesman, p. 9
28. Cordesman, p. 22.
29. Cordesman, p. 2.
30. John S. McCain III, "Proliferation in the 1990's: Implications for U.S. Policy and Force Planning," Strategic Review, Summer 1989, 9.
31. Steve Fetter, "Ballistic Missiles and Weapons of Mass Destruction," International Security, Summer 1991, Vol 16 No.1, 28.
32. McCain, p.15.

33. "The Nuclear Age: Power, Proliferation, and the Arms Race," Congressional Quarterly, 1984, 133.
34. McCain, p. 7.
35. William C. Potter, "The New Nuclear Suppliers", Journal of World Affairs, Vol 35, No. 2, Spring 1992, p. 69.
36. Ibid., p. 69.
37. George Bush, "George Bush and Arms Control: The Questions in 1992, Arms Control Today, Vol 22, No. 3, April 1992, p.4.
38. Disarmament, "Effective and Verifiable Measures Which Would Facilitate the Establishment of a Nuclear-Weapon-Free Zone in the Middle East". United Nations Study Series, 1991, No. 22, p.1-7.
39. Ibid., 1.
40. Ibid., 19.
41. Congressional Quarterly, 133-134.
42. Ibid., 149.
43. Kenneth R. Timmerman, "Weapons of Mass Destruction: The Cases of Iran, Syria, and Libya", Simon Wiesenthal Center, Los Angeles, California, 1992, 8.
44. Ibid., 8.
45. Ibid., 9.
46. Ibid., p. 22.
47. Ahmed Hashim, p.17
48. Ibid., p. 17.
49. Ibid., p.24.
50. Kenneth R Timmerman, "Weapons of Mass Destruction: The Cases of Iran, Syria, and Libya," Simon Wiesenthal Center, Los Angeles, California, 1992, 1.
51. Ibid., 11.
52. FBIS-NES, Daily Report, October 7, 1988, p.52.
53. Ibid., p. 28.
54. FBIS, 20 November 1992.

55. Yossi Melman, "Iran's Lethal Secret," The Washington Post, October 18, 1992, p. C5.
56. Timmerman, p.52.
57. Melman, p.C5.
58. Ibid., p. 53.
59. Hashim, p.31.
60. Timmerman, p.61.
61. "A Little Shopping For Horrors," U.S.News and World Report, November 23, 1992, p.52.
62. Yossi Melman, "Iran's Lethal Secret," The Washington Post, October 18, 1992, p.C5.
63. Steven Coll, "U.S. Halted Nuclear Bid By Iran," The Washington Post, November 17, 1992, P.A1.
64. Georgie Anne Geyer, "Americans Suffer From Solipsism," Harrisburg Patriot News, December 15, 1992, p.a.10.
65. Steven Coll, "West Upping Technology Sales to Iran," The Washington Post, November 10, 1992, p. 1.
66. Timmerman, p. 62.
67. Anne Gieks and Gerald Segal, China and the Arms Trade, St. Martin's Press, 1985, New York, N.Y., P. 1.
68. Richard A.Bitzinger,"Arms to Go: Chinese Arms Sales to the Third World,"International Security, Vol 17 NO.2, Fall 1992, p. 84.
69. Chang-Pin Lin,China's Nuclear Weapons Strategy, 1988, Lexington Books, p. 106.
70. John W.Lewis, "Beijing's Defense Establishment:Solving the Arms-Export Enigma," Internationa Security, Vol 15 NO 4, Spring 1991, p. 108.
71. FBIS, 30 October 1992, p.10.
72. Steve Coll, "U.S. Halted Nuclear Bid By Iran," The Washington Post, November 17, 1992, p.1.
73. Timmerman, p.62.
74. Bitzinger, p.89.

75. FBIS, 25 November 1992, p.39.
76. FBIS, 25 November 1992, p.41.
77. FBIS, 20 November 1992, p. 4.
78. FBIS, 17 November 1992.
79. Rowland Evans and Robert Novack, "Nuclear Warheads For Iran," Washington Post, October 12, 1992, p.23.
80. Chrystia Freeland, "Ukraine Having Second Thoughts About Giving Up Nuclear Weapons," The Washington Post, November 6, 1992, p.20.
81. Stephen J.Blank and Wilbur E.Gray, "After War and Revolution:Trends in Russian Middle Eastern Policy," Strategic Studies Institute U.S. Army War College, Carlisle, PA. p.21.
82. Dr. John D. Anthony, National Council on U.S. Arab Relations, "Foreign Relations of Middle East Countries." Lecture, U.S. Army War College, Carlisle Barracks, PA. January 1993.
83. FBIS, 19 November 1992.
84. Krauthammer, Charles. "Iran: Orchestrator Of Disorder." The Washington Post. 1 January 1993.

BIBLIOGRAPHY

Albright, David, and Mark Hibbs. "Iraq's Quest for the Nuclear Grail: What Can We Learn?" Arms Control Today. (July/August 1992).

Aspin, Les. "Nuclear Weapons in an Uncertain Soviet Union: A New Kind of Threat." ROA National Security Report, November 1991.

Atkeson, Edward B. "Trouble in the Bargain Of Fire Sale Rearmament." Army Magazine. January 1993.

Atlanta Constitution. "U.S. Starts To Wise Up To Iran's Game." 11 November 1992.

Blanche, Edward. "Iraq Reportedly Getting Parts." The Philadelphia Inquirer. 7 November 1992.

Blank, Stephen J., and Wilbur E. Gray. "After War and Revolution:Trends In Russian Middle Eastern Policy." Strategic Studies Institute. Carlisle Barracks, PA. (1992).

Bitzinger, Richard A. "Arms to Go: Arms Sales to the Third World." International Security, Vol. 17, No.2. (Fall 1992).
Bundy, McGeorge. "Nuclear Weapons and the Gulf." Foreign Affairs, (Fall 1991).

Bradsher, Keith. "Aides Meet Today on Dispute Over Sales to Iran and China." New York Times. 4 January 1992.

Bundy, McGeorge. "Nuclear Weapons and the Gulf." Foreign Affairs. (Fall 1991).

Carnesale, Albert. Living With Nuclear Weapons:The Harvard Nuclear Study Group. New York: Bantam Books, 1983.

Central Intelligence Agency. The Chinese Economy in 1990 and 1991: Uncertain Recovery. (July 1991).

Cordesman, Anthoney H. "Weapons of Mass Destruction In the Middle East." The Royal United Services Institute for Defense Studies. (1991).

Chang-Pin Lin. China's Nuclear Weapons Strategy. New York: Lexington Books, New York. 1988.

Coll, Steve. "Tehran Ambiguous On Its A-Arms Plans." The Washington Post. 17 November 1992.

Coll, Steve. "U.S. Firms Have Become Iran's Top Oil Customers". Patriot News, 8 November 1992.

Coll, Steve. "Iran Turns To Germany For High Technologies." The Patriot-News. 6 December, 1992.

Coll, Steve. "West Upping Technology Sales to Iran." The Washington Post. 9 November 1992.

Coll, Steve. "U.S. Halted Nuclear Bid by Iran." The Washington Post. 17 November 1992.

Cordesman, Anthony H. Weapons of Mass Destruction In The Middle East. Royal United Services Institute Study.

Daalder, Ivo. "The Future of Arms Control." Survival, no.34 (Spring 1992).

Department of the Army. Iran: A Country Study. U.S. Army PAM 550-68. U.S. Government. (1989).

Deutch, John M. "The New Nuclear Threat." Foreign Affairs, (Fall 1992).

Edwards, A.J.C. Nuclear Weapons: The Balance of Terror, The Quest For Peace. New York. State University of New York Press, Albany, N.Y. 1986.

Evans, Roland, and Robert Novak. "Nuclear Warheads for Iran." The Washington Post. 12 October 1992.

Fetter, Steve. "Ballistic Missiles and Weapons of Mass Destruction." International Security, Vol 16, no. 1, (Summer 1991).

Foreign Broadcast Information Service. 8, 30 October; 17, 18, 19, 20, 23, 24, 25, 30 November; 4, 10 December 1992.

Freeland, Chrystia. "Ukraine Having Second Thoughts About Giving Up Nuclear Weapons." The Washington Post. 6 November 1992.

Fulmer, Graham. "Respecting Regional Realities." Foreign Policy, no. 83 (Summer 1991).

Gallucci, Robert L. "Redirecting The Soviet Weapons Establishment." Arms Control Today. June 1992.

Garrity, Patrick. "The Depreciation of Nuclear Weapons in International Politics: Possibilities, Limits, Uncertainties." The Journal of Strategic Studies, Volume 14, no.4 (December 1991).

Gershwin, Lawrence K. "US Interests Threatened for Next 20 Years From Mass Destruction Weapons," ROA National Security Report (January 1993).

Gieks, Anne, and Gerald Segal. China and the Arms Trade. New York: St. Martains Press, New York. 1985.

Goldstein, Martin E. Nuclear Proliferation: International

Politics in a Multinuclear World. Lanham, MD.: University Press of America, 1980.

Goodman, David S.G., and Gerald Segal. China In the Nineties: Crisis Management and Beyond. Oxford: Clarendon Press, Oxford, England. 1991.

Green, Jerrold D., "Iran's Foreign Policy: Between Enmity and Conciliation." In Current History: A World Affairs Journal, (January 1993).

Greentee, Todd R. "The United States and the Politics of Conflict in the Developing World." Center Paper, Foreign Service Institute, U.S. Department of State. No.4, (October 1990).

Haass, Richard. "Regional Order in the 1990's: The Challenge of the Middle East." The Washington Quarterly, Volume 14, no.1 (Winter 1991).

Haass, Richard. "Proliferation and the Middle East." The Washington Quarterly. Vol 14. No. 1. (Winter 1991).

Harkavy, Robert L. "After the Gulf Ear: The Future of Israeli Nuclear Strategy." The Washington Quarterly, Volume 14, no.3 (Summer 1991).

Harkavy, Robert L. "Future of Israeli Nuclear Strategy." The Washington Quarterly. Vol. 14, No. 3. (Summer 1991).

Harvey, John R. "Controlling Ballistic Missiles: How Important? How To Do It?." Arms Control Today, (March 1992).

Harvey, John R., and Uzi Rubin. "Controlling Ballistic Missiles: How Important? How To Do It? Arms Control Today. (March 1992)

Harris-Worden, Catherine. China and the Third World. Auburn House Publishing Company. 1986.

Hashim, Ahmed. "Resurgent Iran: New Defense Thinking and Growing Military Capabilities", Institut Francais pour Relations Internationales, undated, typewritten.

Jones, Rodney W., and Steven A. Hieldreth. Modern Weapons and Third World Powers. Boulder, CO.: Westview Press, 1984.

Kaplan, Fred. "Ukraine Officials Tying Missile Removal To Aid." The Boston Globe. 16 November 1992.

Karatnycky, Adrian. "The Ukranian Factor." Foreign Affairs, Vol.71, No.3. (May 1992).

Karp, Arron. "Controlling Ballistic Missile Proliferation." Survival. Vol. XXXIII. No.4. (November/December 1991).

Keddie, Nikki R., and Mark J. Gasiorowski. Neither East nor West: Iran, The Soviet Union, and the United States. New Haven, CT.: Yale University Press, 1990.

Khalilzad, Zalmay. "Solving Ukraine's Nuclear Dilemma and More." The Wall Street Journal. 30 December 1992.

Khan, Sadruddin. Nuclear War, Nuclear Proliferation and Their Consequences. New York: Oxford University Press, New York, 1986.

Kleinberg, Robert. China's Opening to the Outside World. Boulder: Westview Press, Boulder, Colorado. 1990.

Krauthammer, Charles. "Iran: Orchestrator Of Disorder." Washington Post, 1 January 1993.

Lampton, David W., and Catherine H. Keyser. China's Global Presence: Economics, Politics, and Security. American Enterprise Institute for Public Policy Research. 1988.

Lefever, Ernest W. "Nuclear Arms In the Third World: U.S. Policy Dilemma." The Brookings Institution. Washington D.C. (1979).

Leventhal, Paul L. "Plugging the Leaks in Nuclear Export Controls: Why Bother." Orbis: A Journal of World Affairs. Vol 35. No. 2. (Spring 1992).

Lewis, Bernard. "Rethinking The Middle East." Foreign Affairs, (Fall 1992).

Lewis, John W. "Beijing's Defense Establishment." International Security Volume 15, no.4 (Spring 1991).

Lewis, John W. China Builds The Bomb. Stanford: Stanford University Press, Stanford California, 1988.

Lewis, John W. "China's Ballistic Missile Programs." International Security. Vol 17. No. 2. (Fall 1992).

Limbert, John W. Iran at War With History. Boulder, CO.: Westview Press, 1997.

Lowenthal, Mark M. "The Politics of Verification: What's New, What's Not." The Washington Quarterly, Volume 14, no1 (Winter 1991).

Ludington, Nick. "Iran Buys N-Warheads, Group Say's." The Patriot-News. 13 October 1992.

Mackenzie, Richard. "Iran Resurgent." Air Force Magazine, (July 1992).

Mahnken, Thomas G. "The Arrow and the Shield: U.S. Responses to Ballistic Missile Proliferation." The Washington Quarterly, Volume 14, no.1 (Winter 1991)

Mahnken, Thomas G. "Security Implications of Missile Proliferation." The Washington Quarterly. Vol. 14. No. 1. (Winter 1991).

Mendelsohn, Jack. "Weapons In Former USSR Top List of Security Problems." The Baltimore Sun. 8 November 1992.

McCain, John S. "Proliferation in the 1990's: Implications for U.S. Policy and Force Planning." Strategic Review, (Summer 1989).

McNaugher, Thomas L. "Squaring the Middle East Arms Control Circle." Arms Control Today, (March 1992).

Melman Yossi. "Iran's Lethal Secret." The Washington Post. 18 October 1992.

Meyer, Stephen M. The Dynamics of Nuclear Proliferation. Chicago: University of Chicago Press, 1984.

Nolan, Janne E. "Controlling the Global Arms Market." The Washington Quarterly, Vol.14, No. 3. (Summer 1991).

Olcott, Martha Brill. "Central Asia's Catapult To Independence." Foreign Affairs, Vol.71, No.3. (1992).

Raspberry, William. "The Threat From Tehran." The Washington Post. 11 November 1992.

Rioux, Jean-Francois. "Supply Side Controls On Nuclear Proliferation." Orbis: A Journal of World Affairs. Vol 35. No. 2. (Spring 1992).

Perabo, Betsy. A Chronology Of Iran's Nuclear Program. Monterey: Monterey Institute of International Studies, 1992. International Policy Studies Division, Monterey, California.

Pollack, Jonathan D. "The People's Republic of China in a Proliferated World." The Rand Corporation. (October 1979).

Potter, William C. "The New Nuclear Suppliers." Orbis: A Journal of World Affairs. Vol. 35, No. 2. (Spring 1992).

Quester, George H. "Nuclear Pakistan and Nuclear India: Stable Deterrent or Proliferation Challenge." Strategic Studies Institute. U.S. Army War College, Carlisle Barracks, PA. (1992).

Reed, Thomas C., and Michael O. Wheeler. "The Role of Nuclear Weapons in the New World Order (Draft)." Department of Defense Science Board. (1991).

Rothstein, Robert L. "Change and Continuity in the Middle East." The Washington Quarterly, Vol. 14, No. 3. (Summer 1991).

Scheinman, Lawrence. "Managing the Coming Glut of Nuclear Weapons Materials." Arms Control Today, (March 1992).

Scheinman, Lawrence, and David A.V. Fischer. "Managing the Coming Glut of Nuclear Weapons Materials." Arms Control Today. (March 1992).

Schwartz, William A., and Charles Derber. The Nuclear Seduction. Los Angeles: University of California Press, 1990.

Sciolino, Elaine. "CIA Says Iran Makes Progress On Atom Arms." The New York Times. November 29, 1992.

Simpson, John. "Nuclear Non-Proliferation the Way Forward." Survival, Volume 33, no.6 (November/December).

Simpson, John., and Darryl Howlett. "Nuclear Non-Proliferation The Way Forward." Survival. Vol. XXXIII, No. 6. (November/December 1991).

Spector, Leonard S. Deterring Regional Threats From Nuclear Proliferation. Carlisle Barracks, PA., Strategic Studies Institute, March 1992.

Spector, Leonard S. Nuclear Ambition. New York: Westview Press, 1990.

Spector, Leonard. "Nuclear Proliferation in the Middle East." Orbis: A Journal of World Affairs. Vol. 35. No.2. (Spring 1992).

Spector, Leonard. "Nuclear Proliferation Today." Carnegie Endowment for International Peace. (1984).

Sullivan, Roger W. "Discarding the China Card." Foreign Policy Magazine. No. 86. (Spring 1992).

Sutter, Robert G. Chinese Foreign Policy: Developments After Mao. New York: Praeger Publishing, New York. 1986.

Tabatabai, Sassan. "Iran's Buildup." Defense Media Review, Vol. VI, No.4, (August 1992).

Timmerman, Kenneth. Weapons of Mass Destruction: The Cases of Iran, Syria, and Libya. Los Angeles: Special Report Prepared for the Simon Wiesenthal Center, 1992. Simon Wiesenthal Center, Los Angeles, California.

Todd, Thomas E. "Iran's Influence on the Former Muslim Republics and the Implications for U.S. Strategic Policy." Department of Defense, U.S. Army War College. 1992.

United Nations, Department for Disarmament Affairs Report of the Secretary-General, Effective and Verifiable Measures Which Would Facilitate the Establishment of a Nuclear-Weapon-Free Zone in the Middle East, 1991.

U.S. News and World Report. "Iran's Familiar Face." November 23, 1992.